



Virginia Information Technologies Agency



Architecture Reviews

– Overview –

June 2018

What would ya sayyyyyy ya do here at VITA?

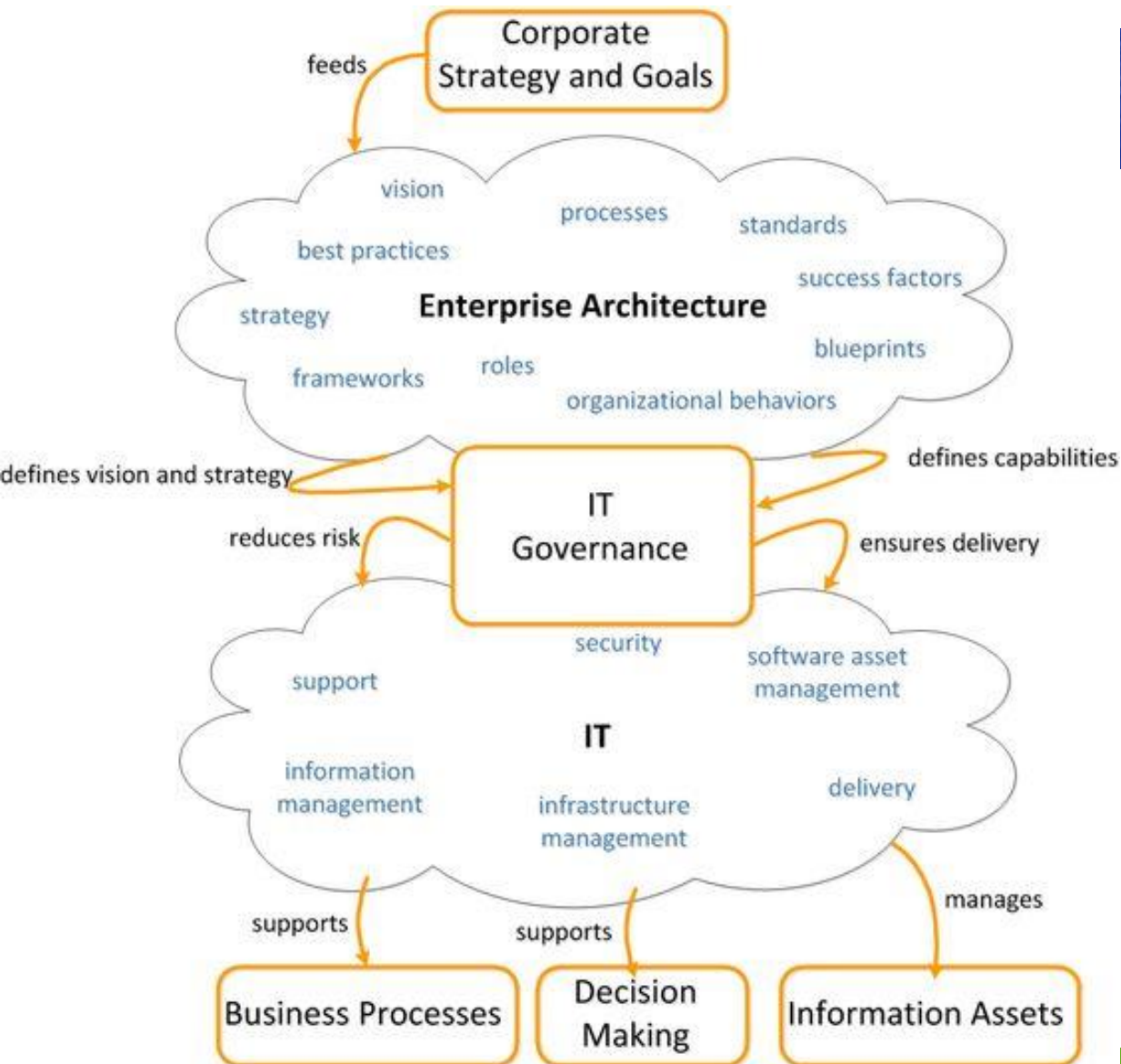


- **As a management discipline EA's:**
 - Produce pictures, diagrams, plans, and roadmaps that...
 - Describe the structure of the enterprise, explain current limitations, and show how changes could make things better.

What would ya sayyyyyy ya do here at VITA?

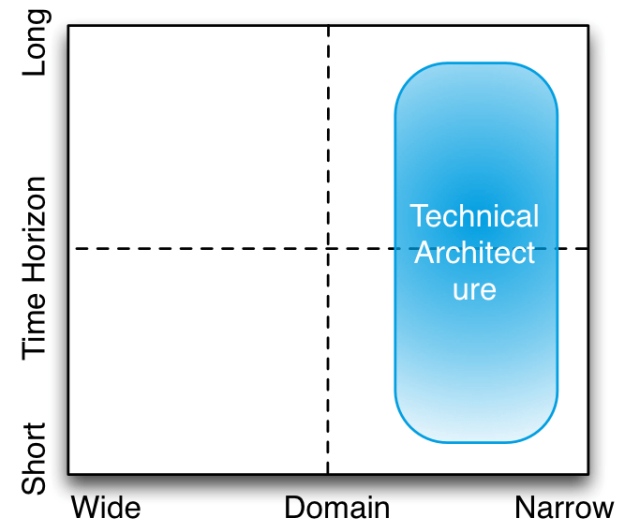
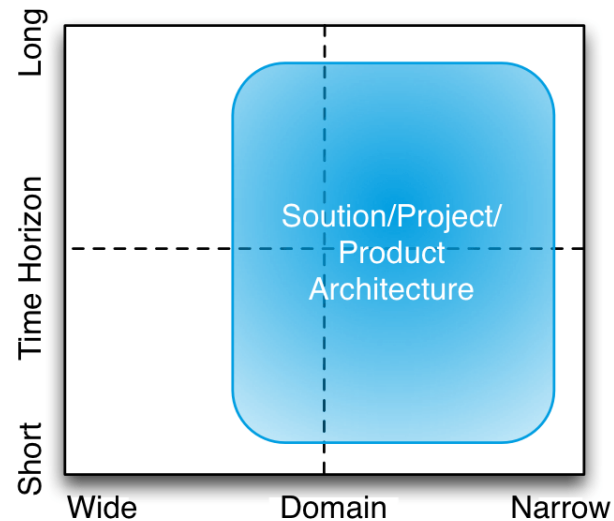
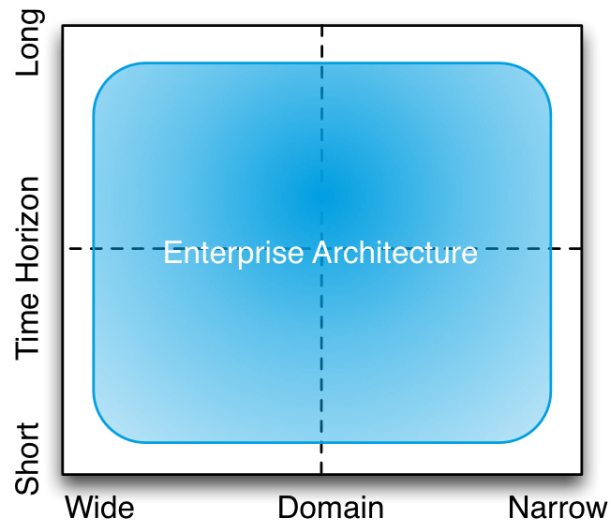


- **As a process**, EA's follow architecture development processes for creation, change, and management.
 - EA's take into account the opinions and views of all stakeholders.
 - EA's make best use of available resources and investments.

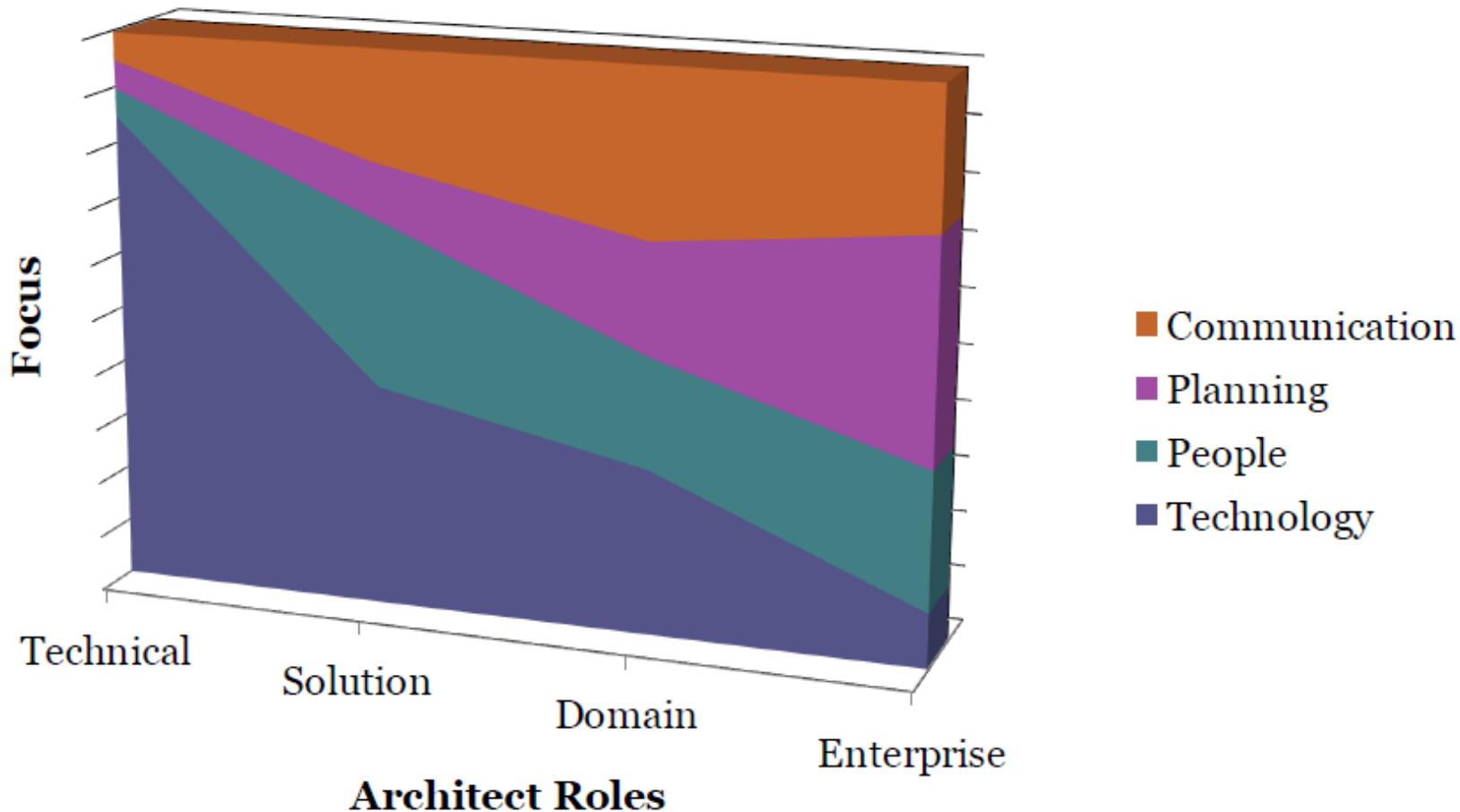


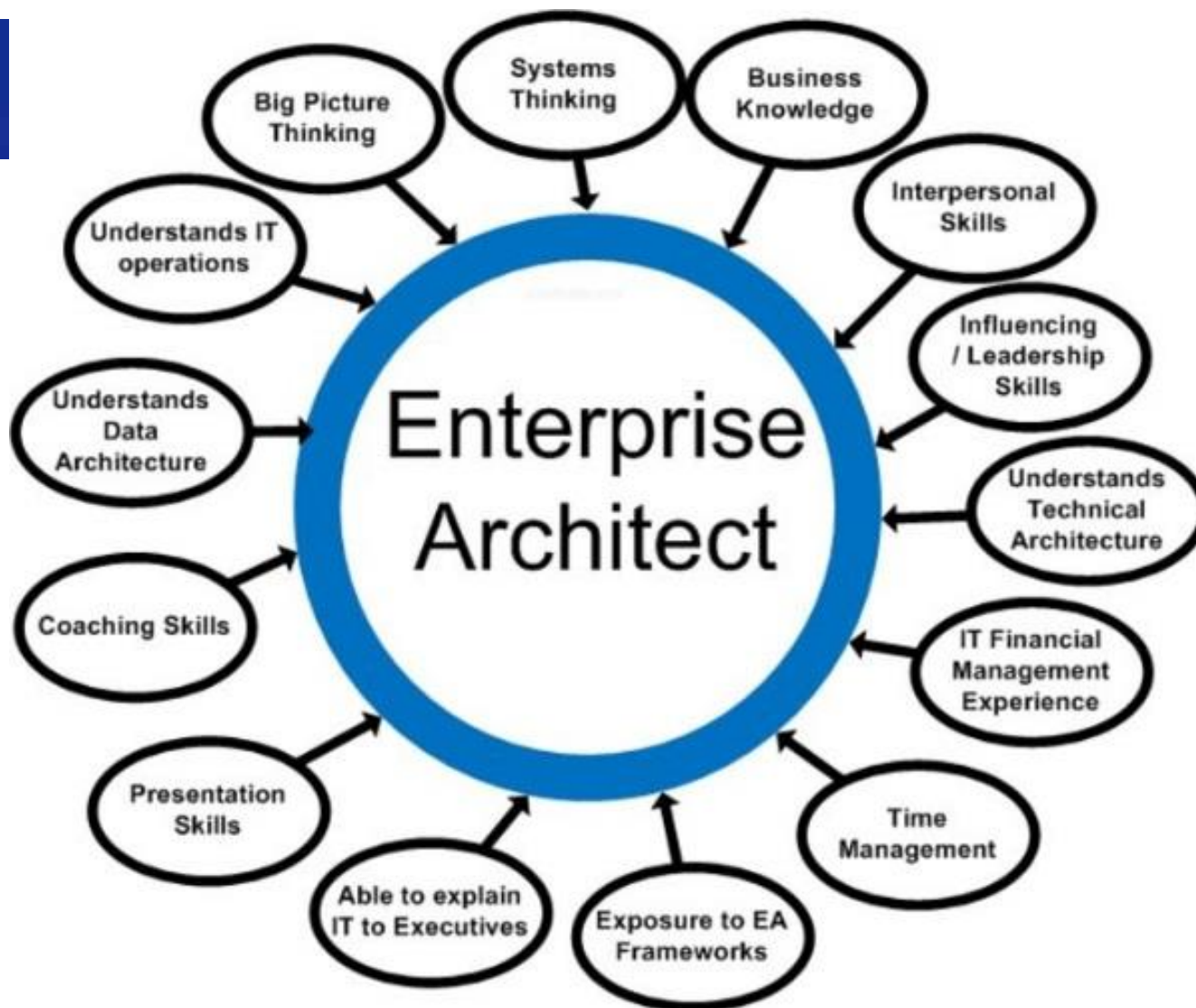
Role of EA in IT Governance

Roles Within Enterprise Architecture



Focus of Enterprise Architect Roles







Architecture Reviews Overview

- VITA Architecture Review (**VAR**) occurs as part of multiple governance processes.
 - Policies, Standards, and Guidelines (PGR).
 - IT Strategic Plans and Amendments.
 - Project Initiation.
 - Request for Proposal (RFP) / Invitation for Bid (IFB).
 - Contracts.



Architecture Qualities

- Architecture reviews consider all enterprise factors influencing the requested change
- Goal is to end up with considerations to successfully integrate the change into the VITA enterprise.
- Performance
- Scalability
- Security
- Availability
- Resilience
- Evolution
- Maintainability
- Supportability
- Geographical Distribution
- Efficiency
- Time to Deliver
- Reliability
- Cost
- etc...



How Much Architecture Reviewing is Enough?

- Depends on risks because architecture is there to mitigate risks.
- Continue architecture until the risks are appropriately mitigated.
- When stakeholders are confident then that is probably enough.



Arch Review Objectives and Intent

- Support compliance with Security and Enterprise Architecture.
 - New IT investments must comply with ITRM requirements and Technology Standards to support a robust and capable enterprise.
 - Allows agencies to transform their enterprises in a controlled manner to meet COV goals and objectives.



Architecture Review Business Drivers

- ITRM requirements
- Enterprise constraints
- Technology standards
- Technology stacks
- Technology trends
- Support (vendor or equivalent)



ITRM Requirements Drivers

- Information Technology Resource Management (ITRM) Policies, Standards and Guidelines
 - ITRM Wide and Supporting Documents
 - Information Technology Resource Management Policy (GOV102-02)
 - Policy, Standard and Guideline Formulation Standard (GOV101-02)



ITRM Requirements Drivers cont...

- COV ITRM Glossary (Version 2.2) (06/07/2017) A single comprehensive glossary that supports Commonwealth Information Technology Resource Management (ITRM) documents.
- COV ITRM Policies, Guidelines, Standards (PSGs) Brief & Supporting Documents (12/08/2015).



ITRM Requirements Drivers cont...

- Enterprise Architecture
 - EA provides the framework for establishing comprehensive requirements for ITRM.
 - EA Policy (EA 200) and EA Standard (EA 225) address all of architecture components.
- GIS, Operations, Security, Project/Program/Supply-Chain Management, etc.



Enterprise Constraint Drivers

- Constrain by adhering to standards
 - Is this change good for the enterprise?
 - Standards may seem a hindrance to some, but constraints, especially in the IT arena, drastically lower support costs.



Enterprise Constraint Drivers cont...

- Allow IT staff opportunity to do one thing, and do it well, versus having to support a wide-variety of differing standards, but doing none of them necessarily well.
~Gartner - The Unexpected Case...



Enterprise Constraint Drivers cont...

- Constrain deviations from standards
 - Architectures are not set in stone.
 - Perhaps the exception is a signal the standard needs to be revisited.
 - Intent is to be flexible to meet agency needs.



Technology Standards Drivers

- Indicate what technologies or products may be acquired / deployed at a particular point in time



Technology Standards Drivers cont...

- EA Technology Component Standard Tables
 - Strategic
 - Emerging
 - Transitional / Contained
 - Obsolete / Rejected



Technology Stack Drivers

- A technology stack includes all of the hardware and software needed to create, support, maintain, test, deploy, run, backup, etc. agency solutions.
- For architecture reviews, technology stacks are divided into two logical pieces:



Technology Stack Drivers cont...

- Deployment stack – all software (major focus) and hardware needed to deploy a solution (OS, database, portal, application server etc.)
- Development/Support stack – all additional software needed to develop and maintain a solution (language, testing tools, etc.)



Technology Initiatives Drivers

- Initiative 1: Emphasize programs and tools that enable all citizens to interact with government safely and securely, with when, how, and where they want to interact.



Technology Initiatives Drivers cont...

- Initiative 2: Improve information-sharing and governance to derive quality information from data already collected.



Technology Initiatives Drivers cont...

- Initiative 3: Leverage technology to improve worker productivity and make state employment more attractive to the current and future workforce.



Technology Initiatives Drivers cont...

- Initiative 5—Expand technology platforms and productivity tools that support Virginia's goal of remaining the best managed state.



Technology Initiatives Drivers cont...

- Initiative 6—Support initiatives that will make Virginia the leader in IT security and risk management.
- Initiative 7—Expand and support enterprise and collaborative IT services.



Support Drivers

Vendors use different terms, but generally, there are 3 high-level software support lifecycle phases of interest:

1. Mainstream – software is fully supported (security updates and hotfixes), new features can be added (Microsoft typically 5 years)



Support Drivers cont...

2. Extended – no new features, software still has security updates and hotfixes (Microsoft additional 5 years).
3. End-of-life – no security updates and hotfixes.



Architecture Review Approach

- Initial Review: Initial series of questions.
 - Agency completes initial questions in EA review submission.
- VITA EA reviews the initial submission.
 - Provide applicable input where needed.
 - Asks additional questions when needed.
 - Completes review with approval or rejection.

EA Reviews Should Help Prevent...



Todd Kissam

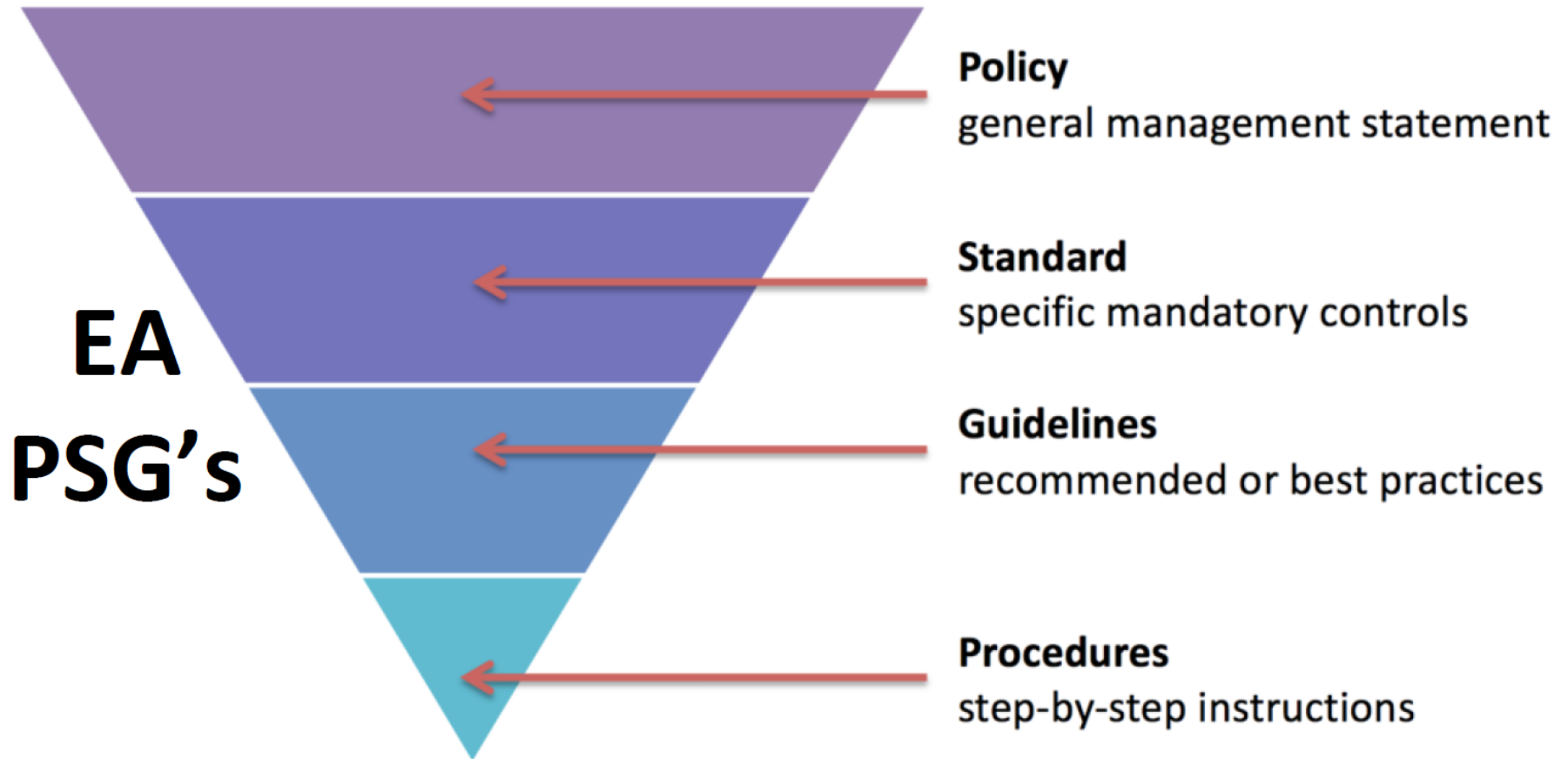


Questions, Concerns, Comments?

Contact: Robert Kowalke



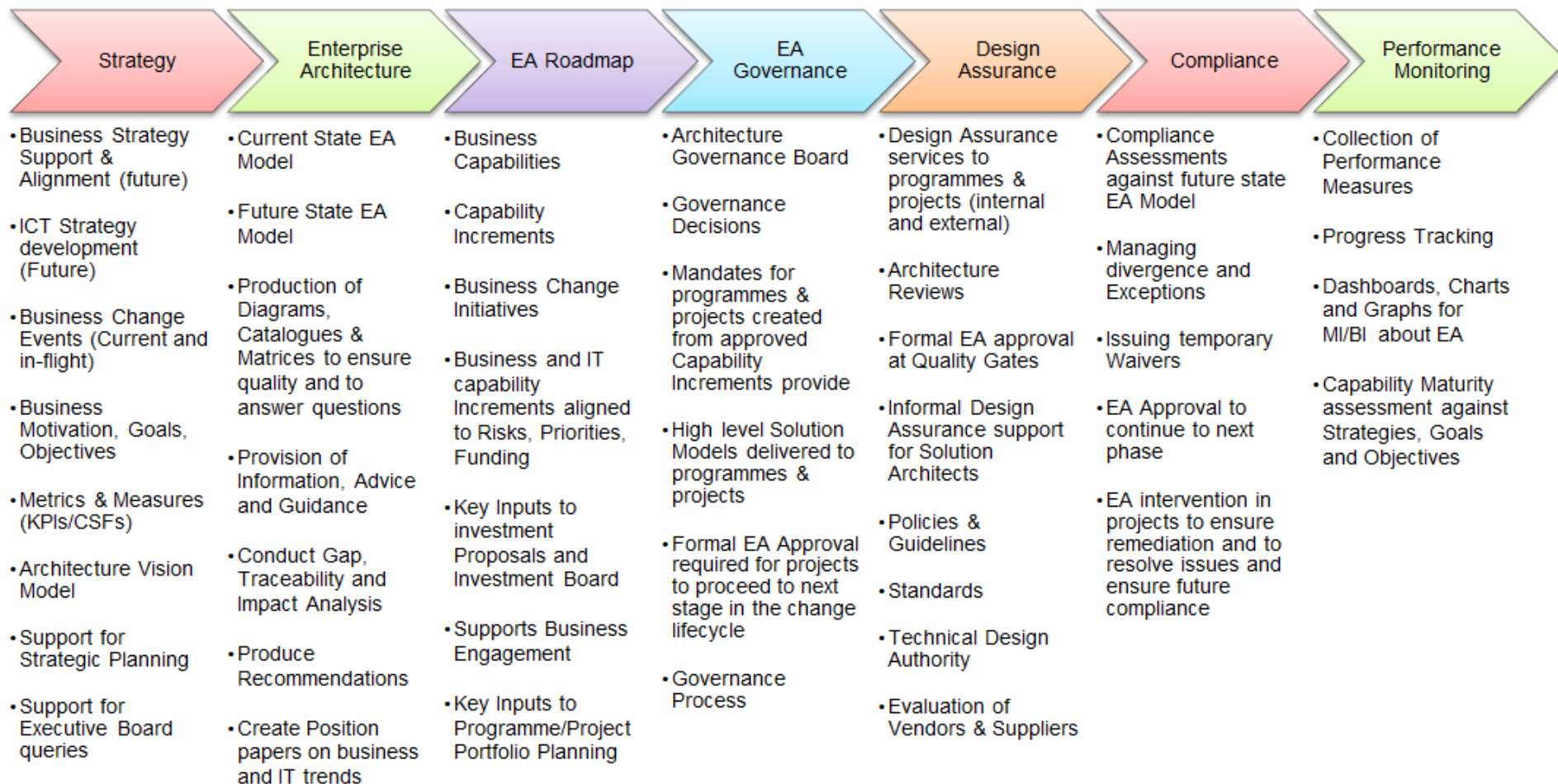
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References

- [Software Product Quality – ISO/IEC 25010](#)
- [Carnegie Mellon University – Quality Attribute Workshop](#)
- [TARA \(Tiny Architectural Review Approach\)](#)
- [TOGAF Architecture Compliance Checklists](#)
- [Stackoverflow architecture checklist questions](#)



EA Lifecycle (Ingenia)